

UNCLASSIFIED

NAVAL WAR COLLEGE

Newport, RI

**NONLETHAL POLICY, NONLETHAL WEAPONS, and COMPLEX
CONTINGENCIES (U)**

Written by Rex D. Sheldon, U.S. Department of Energy

A paper submitted to the faculty of the Naval War College in partial satisfaction of the requirements of the Joint Military Operations Department.

The contents of this paper express my own views. The opinions expressed in it have not been endorsed by the Naval War College, the Department of the Navy, or the Department of Energy.

Signature: Rex D. Sheldon
Rex D. Sheldon

5 February 1999

DISTRIBUTION STATEMENT A
Approved for Public Release
Distribution Unlimited

Signature: _____
Faculty Advisor

UNCLASSIFIED

DTIC QUALITY INSPECTED 4

UNCLASSIFIED

Security Classification This Page

REPORT DOCUMENTATION PAGE

1. Report Security Classification: UNCLASSIFIED			
2. Security Classification Authority:			
3. Declassification/Downgrading Schedule:			
4. Distribution/Availability of Report: DISTRIBUTION STATEMENT A: APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED.			
5. Name of Performing Organization: JOINT MILITARY OPERATIONS DEPARTMENT			
6. Office Symbol: C		7. Address: NAVAL WAR COLLEGE 686 CUSHING ROAD NEWPORT, RI 02841-1207	
8. Title (Include Security Classification): NonLethal Weapons, NonLethal Policy, and Complex Contingencies (U)			
9. Personal Authors: Mr. Rex D. Sheldon			
10. Type of Report: FINAL		11. Date of Report: 5 February 1999	
12. Page Count: 31			
13. Supplementary Notation: A paper submitted to the Faculty of the NWC in partial satisfaction of the requirements of the JMO Department. The contents of this paper reflect my own personal views and are not necessarily endorsed by the NWC or the Department of the Navy.			
14. Ten key words that relate to your paper: Military Operations Other Than War, Complex Contingency, Non-Lethal Weapons, Nonlethality, minimal casualties, Non-Lethal Policy Advocates promote NonLethal Weapons (NLWs) use in a complex contingency as a way to enforce US with an absolute minimum of violence and destruction. They believe that NLWs will offer the operational commander a rheostatic means of applying force that will exactly and precisely and benignly compel the opponents to either cooperate or face incapacitation. However, the environment of a complex contingency is a nonlinear, chaotic, and highly interactive place. The commander will find the operational landscape inhabited by noncombatants and fighters, women and children, and friend and foe alike, all of whom will repeatedly engage with his forces at different times, levels, and ways. NLWs will introduce another element of uncertainty into this environment, making the outcome even less predictable. A robust NonLethal Policy incorporates and integrates all the assets available to the operational commander, including nonlethal and lethal force. Instead of relying mainly on technologies, a policy of minimal casualties (or a NonLethal Policy) will more likely capture the commander's intent, as well as offer an operational level tool to achieve the political goals. One way to appropriately devise a NonLethal Policy lies with reviewing NLWs in light of the Six Principles of Military Operations Other Than War (MOOTW), and then proceeding to answer the Four Questions of the operational commander's mission analysis.			
16. Distribution / Availability of Abstract:	Unclassified X	Same As Rpt	DTIC Users
17. Abstract Security Classification: UNCLASSIFIED			
18. Name of Responsible Individual: CHAIRMAN, JOINT MILITARY OPERATIONS DEPARTMENT			
19. Telephone: 841-6461		20. Office Symbol: C	

Security Classification of This Page Unclassified

NONLETHAL POLICY, NONLETHAL WEAPONS, AND COMPLEX CONTINGENCIES

*"Kindhearted people might of course think there was some ingenious way to disarm or defeat an enemy without too much bloodshed, and might imagine this is the true goal of the art of war. Pleasant as it sounds, it is a fallacy that must be exposed: war is such a dangerous business that the mistakes which come from kindness are the very worst."*¹

- Carl von Clausewitz, On War -

ABSTRACT

Advocates promote NonLethal Weapons (NLWs) use in a complex contingency as a way to enforce US with an absolute minimum of violence and destruction. They believe that NLWs will offer the operational commander a rheostatic means of applying force that will exactly and precisely and benignly compel the opponents to either cooperate or face incapacitation. However, the environment of a complex contingency is a nonlinear, chaotic, and highly interactive place. The commander will find the operational landscape inhabited by noncombatants and fighters, women and children, and friend and foe alike, all of whom will repeatedly engage with his forces at different times, levels, and ways. NLWs will introduce another element of uncertainty into this environment, making the outcome even less predictable.

A robust NonLethal Policy incorporates and integrates all the assets available to the operational commander, including nonlethal and lethal force. Instead of relying mainly on technologies, a policy of minimal casualties (or a NonLethal Policy) will more likely capture the commander's intent, as well as offer an operational level tool to achieve the political goals. One way to appropriately devise a NonLethal Policy lies with reviewing NLWs in light of the Six Principles of Military Operations Other Than War (MOOTW), and then proceeding to answer the Four Questions of the operational commander's mission analysis.

INTRODUCTION

NLWs are generally associated with peacekeeping and peacemaking efforts, and the development of NLWs parallels the increasing number of these missions undertaken by the US military. Advocates promote NLWs as a "kinder and gentler" range of options between inaction and lethal force in what is an uncertain, chaotic, and often dangerous military environment. In this environment, an intimate interchange occurs between the interventionist forces, the combatants, the noncombatants, and the public, or as the *JTF Commander's Handbook for Peace Operations* puts it, "parties to the dispute."² NLWs, though often appropriate and valuable, will add even more elements of unpredictability both in terms of immediate effects and long term repercussions. But instead of concentrating exclusively on NLWs as a solution, the operational commander must integrate all available instruments of power to achieve the policy of minimal casualties, or a NonLethal Policy. A superficial appreciation of NLW capabilities and limitations may result in more confusion, distrust, disappointment, and even death than would a strictly conventional weapon deployment. Furthermore, a doctrine that effectively incorporates NLWs must not be too closely associated with specific technologies, or it runs the risk of becoming obsolete as the technologies or environment changes.

It is a truism today to say that the US military stands in the midst of a conundrum. On the one hand, it has developed into the most lethal fighting force ever seen in human history; armed with precision weapons, nuclear powered ships, long range bombers, formidable armor, and backed by an industrial base second to none, the US military can project power quickly and effectively around the world. On the other hand, increasingly it is also expected to serve as an international constabulary tasked with defusing the spats and rows that make the evening news. These "savage wars of peace," in Kipling's memorable phrase, pose enormous challenges to the

US political and military leadership where the use of massive firepower does not always seem relevant, or at least applicable.

Categorized as a subset of MOOTW, the *JTF Commander's Handbook for Peace Operations* prefers to call the juxtaposition of conflict and humanitarian crisis a "complex contingency," and defines it as "...whenever one kind of peace operation takes place in conjunction with a humanitarian assistance operation."³ MOOTW casts a wider net than this definition, including civil support activities that do not involve force to operations just short of conventional war, whereas complex contingencies do not include short duration events like hostage rescues, or missions without a humanitarian component such as enforcing no-fly zones. This refinement narrows the field of activities under consideration, and the essay will confine its remarks to the complex contingency scenario, which also presents the most operational uncertainty for the use of military force in support of peace. The recent military operations in Somalia ('92 - '94) and Haiti ('94 - '96) are two examples of a complex contingency combining humanitarian efforts and military conflict.

The US military is often thrust into these situations with a lofty mandate to separate the belligerents, keep the peace, administer justice, feed the hungry, heal the sick, and all the while uphold the law in its role as an impartial police force. In the absence of an opposing political/military establishment, or even a clearly defined enemy, the derivation of strategic or operational goals from the ambitious political agenda often is incomplete, and usually poorly defined and ambiguous. Meanwhile, the ubiquitous CNN cameras daily convey powerful images of violence and death to a public uncertain of the meaning and purpose of a mission that is both war and mercy. Unable to accept destruction as an unavoidable consequence of participation, and yet unwilling to withdraw and leave the participants to their own devices, the American public in-

sists on victory without violence and consequently is reluctant to either inflict casualties or absorb them. Hence the fascination with the almost magical weapons of nonlethality.

Even the Army Field Manuals transmit a sense of uncertainty when they reject the concept of a "traditional military victory...as inappropriate" for peacekeeping missions, preferring instead to identify the conflict and not the combatants as the enemy.⁴ Combine this with the observation in *A Joint Concept for Non-Lethal Weapons* that states "Increased interaction between friendly troops and friendly, neutral, or hostile civilian populations has become a feature of the contemporary operational landscape."⁵ and the need for an adequate NonLethal Policy becomes clear. Despite the vagueness of the Army Field Manual, it is the combatants with whom commander will interact, and against some of whom he will direct his weapons. This point becomes important as the development of NonLethal Policy and use of NLWs is contemplated because the participants' reactions will have great influence on the success or failure of the operation.

Other pitfalls lie outside the theater of operations. The identification of certain technologies as inherently nonlethal, qualifications notwithstanding, may reflect a fascination with technology over policy. The availability of NLWs, or at least the belief that such weapons exist and will work as advertised, could lull political and military leadership into complacency and avoidance of difficult choices.⁶ In serving as a substitute for lethal force, NLWs may allow the leadership to substitute equipment for decision, confusing the real issue of devising appropriate strategic goals, policies, and operational procedures.⁷ The public, unaware of the limitations of the technology, may have unrealistic expectations based on a few uncritical reports in the media. Or the initially successful deployment of NLWs may heighten their reputation to the point that any failure becomes catastrophic. A robust NonLethal Policy, however, will work to prevent an overemphasis on technology at the expense of operational coherence.

UNDERSTANDING NONLETHAL WEAPONS

Any discussion of NLWs must start with determining exactly what they are. The reader beginning to study the issue will quickly note how many definitions appear in the literature surrounding the subject, ranging from science fiction to the more prosaic. For example, the Morris, who have been forceful proponents for NLWs, define them and then require their employment with the following comments. As is evident in their statements, there is a physical and an operational component to their view on nonlethality.

Nonlethal weapons [are] defined as weapons whose intent is to nonlethally overwhelm an enemy's lethal force by destroying the aggressive capability of his weapons and temporarily neutralizing his soldiers.

Nonlethality is the use of weapons of mass protection such as nonlethal and anti-lethal weapons and information warfare to project high precision power in a timely fashion, delivering results that are life conserving, environmentally friendly, and fiscally responsible.

The ability to nonlethally overwhelm an enemy who is using lethal force has become clear requirement for peacekeeping, peace enforcement, operations other than war, and military operations in built-up areas where minimum destruction of life and property are prerequisites for action.⁸

David Morehouse, another strong advocate for nonlethal weapon development, emphasizes the transformational aspect of nonlethal weapons and policy when he says:

[NLWs] offer humankind an evolutionary escape hatch from what is otherwise predicted to be a continuing cycle of ever increasing lethality. ... Nonlethality is a revolutionary concept that can guide the international community into realizing a new world order.⁹

This represents some of the earlier views on NLW; subsequent authors have tempered these claims. Though current expectations no longer reflect this perspective in its entirety, it does present one end of the conceptual spectrum, and it illustrates the enduring hope that NLWs can defeat the enemy without inflicting permanent harm to almost anything or anyone. In this model, the quintessential NLW would be the Star Trek phaser that could precisely stun and not

kill no matter what range it operated over or target it engaged.¹⁰ Yet, despite the extravagant claims, the recognition clearly comes through that nonlethality fundamentally is a *policy* of minimum destruction that incorporates different technologies.

Most definitions delineating NLWs now converge on the one provided by the Department of Defense, which this essay will use since it will be the most pertinent to the operational commander. Three renditions appearing in various DoD publications offer relevant insight into the underlying assumptions. The first one listed here comes from testimony by George R. Schneider, the Director of Strategic and Tactical Systems (OUSD(A&T)), before the Senate Armed Services Committee:

We consider nonlethal weapons to be those explicitly designed and primarily employed so as to incapacitate personnel or material, while minimizing fatalities, permanent injury to personnel, and undesired damage to property and the environment. Examples are weapons that would incapacitate, stop, or distract individuals; allow us to seize them or stop their vehicles; permit us to block an area to individuals or vehicles; or enable us to control crowds.

It is equally important to make clear what we do NOT include within the term nonlethal weapons. We do not include psychological operations, electronic countermeasures, precision lethal weapons, or most weapons associated with information warfare.¹¹

Echoing that statement, the DoD Directive 3000.3, *Policy for Non-lethal Weapons*, defines NLWs in the following manner.

Non-Lethal Weapons ... are explicitly designed and primarily employed so as to incapacitate personnel or material, while minimizing fatalities, permanent injury to personnel, and undesired damage to property and the environment.

- 1. Unlike conventional lethal weapons that destroy their targets principally through blast, penetration and fragmentation, non-lethal weapons employ means other than gross physical destruction to prevent the target from functioning.*
- 2. Non-lethal weapons are intended to have one, or both, of the following characteristics:*
 - a. They have relatively reversible effects on personnel or material.*
 - b. They affect objects differently within their area of influence.*

The third example comes from the 1997 Land Air Sea Application Center of the US Army Training and Doctrine Command (TRADOC) which published a pamphlet with the same definition as given above, however with an added explanatory qualifier.

*The term "non-lethal" should be understood as a function of intent: zero mortality is a goal, not a guarantee of these weapons.*¹²

This last comment makes two interesting points. First, note that the users' intent, not the technology selected, determines nonlethality. In an ironic twist on the oft-heard defense of private ownership of firearms - "Guns don't kill people, people do" - one could say that NLWs don't save lives, commanders do. With this recognition, it becomes imperative to examine and develop comprehensive plans and policies that express that intent. Secondly, the caveat that NLWs may result in death cannot be overlooked. All NLWs, particularly those used in an active and offensive capacity, rather than just in a passive and defensive mode, have the potential to seriously injure or even kill their victims. In the esoteric discussions that surround the subject, that caution must not be missed.

One final item that clarifies understanding NLWs lies with the notion of a nonlethal attack against materials. The draft TRADOC publication addressing tactics, techniques, and procedures for NLWs identifies "anti-material" weapons as a core capability.¹³ Other writers, like the Morrisises, write that "Nonlethality categorizes nonlethal weapons as (1) antipersonnel or antimaterial..."¹⁴ This distinction implicitly asserts that machines and equipment are subject to attacks in the same manner as men. But that is not true, and the distinction between lethal or nonlethal attack on materials or equipment does not add much value.

Instead of being NLWs, technologies used to degrade the functioning of equipment and materials are properly part of the NonLethal Policy, with the understanding that their use may or may not be lethal, and whose effectiveness can be approximated in economic terms. This dis-

tion assists the commander in placing the proposed weapons in their proper perspective, and it helps categorize those activities or items that specifically were not included as NLWs in the Senate testimony. They become components of the overall NonLethal Policy, where they may prove quite effective and even necessary for the policy to achieve maximum effects.

OPERATIONAL CONSIDERATIONS

Although complex contingencies by definition are not 'war', they are no less and possibly even more unpredictable than high intensity conflict. Again to quote Clausewitz,

*Circumstances vary so enormously in war, and are so indefinable, that a vast array of factors has to be appreciated--mostly in the light of probabilities alone. The man responsible for evaluating the whole must bring to his task the quality of intuition that perceives the truth at every point. Otherwise a chaos of opinions and consideration would arise, and fatally entangle judgement.*¹⁵

Rather than falling into the temptation to view NLWs in isolation, or only consider them after the initial decisions are already in place, this essay offers three steps to begin the mission analysis, as presented below. First, it reviews how the *JTF Handbook* portrays the operational environment of a complex contingency.¹⁶ Truly each complex contingency is unique, but they probably will share similarities in the types of operational characteristics found among them. Next, the essay examines the Six Principles of Peace Operations outlined in several of the military manuals addressing operations, such as the *JTF Handbook*, or in *FM 100-23, Peace Operations*. By examining the NonLethal Policy in light of these principles, the reader will gain additional insight into the usefulness and applicability of the NLWs, as well as other assets, and how they may help or hinder the policy goals. Finally, this essay looks at the Four Questions posed by the Joint Military Operations Department at the Naval War College as the first step in gaining a handle on Clausewitz's "vast array of factors." The responses given in this essay to those

questions do not pretend to be exhaustive, but are offered for the sake of initiating discussion and identifying additional avenues for investigation.

Operational Environment Characteristics

The characteristics given below help distinguish a complex contingency from other MOOTWs, and they will have bearing on the development of the operational plan and the use of NLWs within that plan. The *JTF Handbook's* in bullet form lists the:

- ♦ *Increased use of asymmetrical means by the belligerents*
- ♦ *Dominance of political objectives*
- ♦ *Presence and involvement of nongovernmental, private voluntary, and international organizations; media; and other civilians in the joint operations area--these groups will impact on operations*
- ♦ *Usually takes place in a failed state*
 - ♦♦ *Numerous parties to the conflict*
 - ♦♦ *Undisciplined factions (fail to respond to their own leaders)*
 - ♦♦ *Ineffective or short-lived cease fires*
 - ♦♦ *Absence of law and order*
 - ♦♦ *Gross violations of human rights*
 - ♦♦ *Risk of local armed opposition to peace operations forces*
 - ♦♦ *Collapse of civil infrastructure*
 - ♦♦ *Presence of many refugees and internally displaced persons*
 - ♦♦ *Poorly defined operations area*

The operational commander cast into this morass must have a clear understanding of how NLWs will support him during mission execution. Perhaps most importantly, all the interested parties -- the commander, the public, nongovernmental organizations (NGOs) and private voluntary organizations (PVOs), the media, and the politicians -- must recognize the inherently confused and nonlinear attributes of these contingencies. Much has been made of the "rheostatic" or "tunable" quality of NLWs in terms of the level of force they project, though more from a tactical than operational perspective.¹⁷ The metaphor clearly implies that NLWs will have a predictable influence on the continuum of violence, but that may not always be the case. Instead, a plan

that recognizes the chaotic nature of the operational environment provides a framework that all the listed players can understand and support, and it serves to enhance the utility of NLWs in support of the NonLethal Policy goals.

The Six Principles for Peace Operations

Objective: "Direct every military operation towards a clearly defined decisive and obtainable military objective".

Using NLWs is not a mission objective; instead, NLWs support the objectives of Non-Lethal Policy. Although the *JTF Handbook* comments on the dominance of political objectives, perhaps it would be more accurate to refer to the prominence of political issues, i.e., NLWs will have a strong political component that may be tangential to the immediate military operational objectives.

The operational commander must not let political pressure to use NLWs drive policy.¹⁸ Rather, the NonLethal Policy will specify the objectives, which include the minimization of casualties, and those objectives remain preeminent in whatever mix of weapons or forces the commander selects. This point was made in the after-action report from Operation United Shield and deserves emphasis here: "continuity and standardization of the mission objectives is a must."¹⁹ The mission objectives must be clear to everyone, particularly since the same report recommended the decision to use NLWs should happen at the lowest command level possible.

The use of NLWs should be subjected to the same scrutiny as other weapon systems. NLWs' contribution to the Non Lethal Policy goals must be explicitly understood, and the commander must identify the benefits and risks incurred by relying on them in whole or in part. He must know the markers for mission success and failure, and the influence of NLWs upon that outcome.

The operational commander must pay close attention not only to his command chain's ongoing formulation of political objectives, but also to the political and strategic objectives of all the parties involved in the contingency. If the political goals set for the commander conflict those from the opposition, the conflict may escalate to the point that military conditions favoring the use of NLWs will no longer be appropriate.

Unity of Effort: "Seek unity of effort in every operation."

A NonLethal Policy sounds good in the abstract, but it may expose previously hidden differences between the coalition partners. Even more so than in conventional forms of war, the plethora of different organizations, factions, nationalities, and forces in a contingency operation lead to fluid and multiple lines of accountability and incompatible agendas. This was a problem in Somalia when the UN contingent included nearly 20 different nationalities.

Differences might arise from simple misunderstandings of the concepts and terminology employed, through conflicts between the relative virtues of different weapon systems, to deeper cultural differences regarding the value of human life. It is important for all the different commanders represented, whether coalition partners or other US military components, to coordinate their Rules of Engagement (ROE) concerning NLWs as well as lethal force. Consistent RoE, particularly for the use of NLWs, will do much to present a unified front.

NGO and PVO cooperation is critical for overall mission success, including minimizing the number of casualties.²⁰ For example, if they are engaged in providing health and social care services, a sudden influx of NLW victims may place extra burdens on already overtaxed medical resources. NGOs and PVOs may also have insight into the local mores and culture that would

prove valuable in deciding how to employ NLWs or, more likely, contribute towards avoiding unnecessary confrontations that end up requiring force to resolve.

Security: "Never permit hostile factions to acquire an unexpected advantage."

The operational commander's commitment to security against all threats must be unquestioned, regardless of whether malevolence or merely opportunistic criminal intent motivates the threat. How the commander combines NLWs and lethal force will be determined by a host of factors not always evident until the force is in place, and the use of NLWs must never convey a weakening of individual or unit security. Having said that, security presents some of the thorniest problems when considering how to enforce the NonLethal Policy and employ NLWs.

First, a distinction exists between self-defense and mission execution. All military doctrine emphatically teaches that the right to self-defense is unlimited, both at an individual level and for the unit as a whole, and the commander has the absolute responsibility to provide adequate defense of his command.²¹ Not only does self-defense permit lethal force, but self-defense does not require the use of NLWs before engaging with lethal force.²²

In one instance, in Somalia a local man armed with a knife attacked a soldier. Other soldiers successfully overcame the knife wielder with pepper spray,²³ but in Haiti a Special Forces soldier was killed when pepper spray instead of lethal force was used in response to sudden aggression. While the first case may be considered a successful use of a NLW, the second instance reveals the danger of relying on NLWs when insufficient time or distance prevents resorting to lethal weapons if the initial defense fails.

This underscores the need for an alternative course of action if the NLW fails to accomplish the user's goals. In every case where NLWs provide security, an adequate lethal alternative

must exist in the event the NLW does not succeed in defeating the attack. Furthermore, American troops must not be left in a compromised or untenable position if the NLWs prove inadequate. By way of example, the reader may remember the use of pepper spray in Somalia to ward off hordes of unarmed, thieving children from the soldiers' and Marines' persons. This example often is referred to as a successful and appropriate use of NLWs when lethal force would not suffice. And indeed it was. But this is also somewhat disingenuous, since no one has proposed what the next course of action would have been if the Somali children had learned how to mitigate the pepper spray effects and continued to steal from the men.

Also, the operational commander must consider whether the NonLethal Policy warrants a lethal response to the use of NLWs *against* his troops. In the US, based on the unacceptable risk of losing situational control, policemen are authorized the use of lethal force in response to a nonlethal attack.²⁴ However, if the operational commander engaged in active mission execution responds with lethal force against NLWs beyond the demands of self-defense, the legitimacy of the operation may be called into question. Yet the tactical defeat of US forces, even by opponents using NLWs, may be unacceptable as well. Part of the solution to this problem lies with keeping focused on the NonLethal Policy objectives and deciding how best to pursue them with the assets available.

Another issue confronting the operational commander centers on the defense of some or all of the local population from predation by other hostile factions. The population has to have confidence in the commander to defend them, whether by NLWs or lethal force. Without that confidence, they may feel the need to act preemptively in their own self defense, which could easily diminish the goals of NonLethal Policy. Instilling this confidence will greatly enhance the legitimacy of the US forces in the theater.

Legitimacy: "Sustain the willing acceptance by the people of the right to the government to govern, or a group or agency to make and carry out decisions."

FM 100-23 states that "Legitimacy is a condition growing from the perception of a specific audience of the legality, morality, and correctness of a set of actions."²⁵ It does not come as a surprise to discover there will be more than one audience watching the commander operate. There will be a local audience, the international audience, and then the US domestic audience. Each of these groups may hold different views of the legitimacy of the mission and the Non-Lethal Policy. The success of a Nonlethal Policy will depend on the audiences' receptions to the uses of force, even as the opposition may attempt to strip legitimacy from the commander by precipitating a NLW failure.

RoE for lethal weapons and NLWs must be clearly understood by all parties. Since the RoE are based on three considerations: policy, operational requirements, and law,²⁶ any use of NLWs must fall within those parameters. Furthermore, the NLW RoE should not be allowed to serve as a means of manipulating the coalition members against each other, and they must be executed with impartiality and consistency.

The reinstatement of impartial law enforcement will support legitimacy. The use of NLWs, particularly at first when many lawbreakers may only be acting to preserve their families or possessions, allows opportunity to regain control without unnecessary violence. Later in the operation, when the strategic goals of the political leadership are well understood by the local population, it may prove beneficial to increase the lethality of the peacekeeping forces to maintain their credibility in the eyes of the public.

This is because a force that lacks credibility will not remain legitimate. If the use of NLWs makes the commander appear inept and unable to enforce his will, the net effect might be

to increase the danger and risk of mission failure. NLWs must not be viewed as a half hearted, timid response to provocation that deserves a more severe response. In short, a commander's force measured against the possible opposition must be credible.

Restraint: Apply appropriate military capability prudently.

Restraint is the *sine qua non* of NLW use, and if it was not for the desire to minimize suffering, there would be no reason to use NLWs except as a lethal force multiplier. The use of NLWs by the peacekeepers must match the circumstances, not be simply an expression of frustration. The indiscriminate use of NLWs or the use of severe NLWs in response to a minor annoyance may appear as a form of bullying and intimidation.

Proportionality is a synonym of restraint. The law of unintended consequences can easily overwhelm any direct NLW effects and make an engagement quite disproportionate. Subjecting a crowd of curious onlookers to a massive NLW attack for the sake of subduing one of them may not be a net gain. What is important in terms of the lethal or nonlethal aspects of a given attack are the subsequent reactions after the damage is inflicted. An EMP weapon that disables a fleeing automobile can also cause an accident if the operator loses control of the vehicle from the disabling effects. The user must understand the context for applying the NLW, and recognize that to the same extent that human lives depend on the proper and uninterrupted functioning of technology, weapons that disable that technology will threaten the health and well-being of those lives.

But if the situation does warrant the use of indiscriminate NLWs that results in a number of incapacitated individuals, the commander must be prepared to take responsibility for them until they recover. For example, NLWs used against an unruly crowd may result in the unaffected

individuals fleeing in panic and trampling the less fortunate as they succumb to NLWs effects. The commander must also be prepared to administer medical attention and physical security to those completely overcome by the weapon effects, and to prevent the unscrupulous from taking advantage of their incapacitated condition. While these may all seem like tactical concerns, there are operational considerations in terms of logistical support, combat service and support, and burdens imposed upon the local economy or social services from NLWs having either direct or indirect long lasting effects upon the victims.

Paradoxically, this may also provide an opportunity to gain legitimacy and acceptance in the eyes of the local population. The commander, having reluctantly and under provocation used NLWs, who subsequently shows concern for the weakened individuals will build a reservoir of trust among the population. Consideration given to the number of victims affected by the NLWs use ties closely to the concept of proportionality.

Another key component of restraint must be the perception from the public that restraint is being employed. One only has to remember the public reaction to the use of NLWs upon Rodney King by the Los Angeles policemen. Although they chose to use NLWs to subdue Mr. King, their apparent lack of restraint had precisely the unintended result of delegitimizing police authority.

In summary, the commander must balance the need for security with restraint, and make clear to all the interested parties how that balance applies. To this end, one of the primary messages disseminated to the population and the troops is that restraint does not imply lack of resolve to either exercise self-defense or accomplish the mission.

Perseverance: Prepare for the measured, sustained application of military capability in support of strategic aims.

A complex contingency will not have easily identifiable markers of success, though some of the more obvious indicators might be a reduction in the level and frequency of hostile interactions between the opposing factions or with the peacekeeping forces. However, it is important not to let the NonLethal Policy prevent the commander from escalating the conflict as necessary. An opposition leader, armed with the knowledge there is a finite limit to the amount of violence and destruction the political leadership will bear, can escalate the conflict past that point to achieve his goal of getting the military forces out of the theater. NLWs can not be allowed to suggest an unwillingness to raise the conflict to a level that will sufficiently deter the opposition's escalation.

The commander must prepare the public and media for the occasional but inevitable failure of NLWs to work as advertised. In addition to failing to deter, they may fail to preserve. That fact should not be allowed to justify a declaration that either the NonLethal Policy or that all uses of NLWs are invalid.

Finally, the operational commander should seek feedback from the subordinates who must carry out the orders and enforce policy and live with or operate the NLWs. In particular, those soldiers or even nonmilitary individuals who have daily contact with the local population will have immediate insight into the efficacy of the NLWs or the NonLethal Policy to achieve the operational goals. The commander must be able to monitor those short and rapid feedback loops created by the intimate nature of the operational landscape.

The Four Questions

1. What military conditions that must be produced in the operational arena to achieve the strategic goals set forth? (Ends.)

The strategic goal of having the people regain their hope for their future points directly to a Nonlethal Policy that will build trust in the intervening forces. NLWs can purchase time and space for the NonLethal Policy to develop that trust, but a successful policy will focus on the objectives rather than the means. Resolution of "wars of peace" places a premium not on social and physical destruction but on restoration and preservation of what remains. With a few exceptions, the US military does not become involved until the local conditions have arrived at a crisis point. In this situation, the US forces entering the theater have a requirement to quickly and decisively take control of the situation, yet not be perceived as an imperial occupation. A Non-Lethal Policy can contribute to the reestablishment of legitimate political and social authority without unnecessary destruction, and reinforce the interventionist force's authority without appearing heavy handed. NLWs can be a force multiplier for the operational commander to execute that mission.

In a complex contingency, the operational center of gravity (CoG) will be difficult to ascertain, since it is not necessarily tied to terrain, forces, or key figures in the opposition.²⁷ It may be as ephemeral as the political support or legitimacy of the different factions, the local perception of the interventionist forces as one of disinterested integrity, and the "hearts and minds" of the people. In fact, in a complex contingency, the operational CoG appears almost strategic in its formulation, and the military conditions that address the CoG will have immediate strategic consequences. NLWs may allow the operational commander to attack a critical vulnerability leading to the CoG in ways that would not be available using lethal force.

Once the operational commander has completed the initial task of taking control and imposing a certain sense of order onto the chaos, the military conditions become even more political than before. The operational commander must be attuned to the fact that if he has correctly identified the opposition's CoG, any successful movement against that CoG will be received as a direct threat, NonLethal Policy or NLWs notwithstanding. In Somalia, the forcible disarmament of the population was met with increasing resistance both on an individual and operational level. The individuals felt they were being deprived of personal security, while the clan power structure knew they were losing military force and, hence, significance.²⁸ The commander must be aware that if NLWs are effective, they could precipitate challenges to the a NonLethal Policy that may only be resolved with lethal force.

2. What sequence of actions is most likely to produce that condition? (Ways.)

The availability of new technologies and weapons do not obviate the need for a meaningful operational plan.²⁹ Rather than merely viewing NLWs as just another weapon, or "arrow in the quiver," the operational commander must devise a plan that fits the NonLethal Policy using a suite of tools in imaginative ways. The commander should consider their utility in terms of desired end states. An articulate, well thought out plan will assist the operational commander in resisting the tendency of his strategic and political leadership to interfere and demand the use of specific NLWs. The operational plan must clearly define how lethal force and NLWs will be integrated to realize the policy goal of minimizing casualties and accomplishing mission requirements.

Generally, there are two aspects to using NLWs: the physical characteristics of the technology, and the operational context in which the weapons will be used. The physical employment of NLWs can be taught relatively easily, but the operational aspects present greater diffi-

culties due to the unique conditions of each contingency. Even more than conventional weapons of deadly force, the successful employment of NLWs depends on a rather sophisticated understanding of the operational context. Expecting the deployment of NLWs to automatically reduce the level of violence will lead to disappointment at least. Especially given the predictable media scrutiny, and the American tendency to view technology as a panacea, using NLWs without sufficient forethought could lead to unanticipated consequences, and perhaps even disaster.³⁰

New weapons point to revised doctrine and tactics, which in turn give the commander additional ways to achieve strategy aims, but simply adding wonder weapons to the arsenal do not make up for inadequate operational goals.

As a final item, the use of unique weapons and tactics will require extra training and rehearsals for the deployed forces. In particular, the RoE governing the use of NLWs, the intent that drives the RoE, and the fall-back course of action should the NLWs prove inadequate must be well understood by everyone. A problem with RoE in Operation United Shield was that they limited the use of NLWs to the same circumstances as lethal force, which effectively nullified their value. "If I have to wait until deadly force is authorized before I can shoot them with a bean bag or rubber baton, why would I resort to less lethal means at all?" asked one Marine.³¹ Instead, it might be useful to base the RoE around the conduct or threat presented, rather than based on the weapons available. One source of insight into the use of lethal and nonlethal force may be found in the procedures developed by American police forces for dealing with individuals or mobs in various states of agitation. This type of support already has precedent from when the Marines drew heavily upon police expertise during their preparation for Operation United Shield in Somalia.³²

3. How should the resources of the joint force be applied to accomplish the desired sequence of actions? (Means.)

The best NonLethal Policy may not need the new NLWs. Most people associate NLWs with exotic technologies, but like the lady who discovered she had been speaking prose all her life, the military has been using them for a lot longer than the term has existed. While the newer NLWs do offer some unique capabilities and deserve further technological investigation and doctrinal development, typically they are situation specific and present difficulties for general application. Interestingly enough, based on the DoD definitions, tear gas, smoke, barbed wire, frequency jamming, and chemical defoliants could be considered NLWs in addition to some of the more exotic devices now being sold to the military. Military Police units have used law enforcement oriented NLWs in the form of handcuffs, batons, pepper sprays, and police dogs to achieve their ends. Even naval or economic blockades can be considered a nonlethal policy, though blockades are also recognized as overt acts of war. The difference between historical uses of NLWs and the current situation again lies with the operational commander's intent formulated in policy.

During the sustained combat operations that have characterized previous wars, the enemy was considered hostile, armed, and to be engaged at will. Traditional NLWs were incorporated in doctrine and operational planning for many years as lethal force multipliers and not intended to spare the lives of the enemy. Barbed wire channeled the assaulting enemy formations into kill zones covered by lethal weapons, radio jamming isolated the enemy units from each other, tear gas forced enemy soldiers out of their hide positions where they could be engaged and destroyed, smoke has always been used to obscure enemy observations, and chemical defoliants were used in the Vietnam War to deny the enemy concealment and destroy his food production capabilities.

The direct physical effects of the technology were nonlethal, but the intent behind the use of the technology most emphatically was.

Sometimes the inverse was true: the weapon effects were decidedly lethal, but the operational intentions were to minimize casualties. During the attack on the Panamanian Defense Force at Rio Hato during Operation Just Cause, the US Air Force deliberately dropped two 2000 lb bombs over 200 yards away from the soldiers' barracks. The intention was to frighten and disorganize the sleeping troops, but not to kill them.³³ This case illustrates how the operational commander was able to use lethal force to accomplish the mission and still meet the policy of minimizing casualties. In fact, even without the benefit of using NLWs, senior political and military leadership sought to minimize casualties during both Just Cause and the Gulf War to avoid alienating the population from ultimate US political goals. By the same token, precision guided munitions also support policies of minimal casualties although they are not categorized as NLWs.

These examples illuminate how policy and technology must act in concert for maximum effectiveness: even conventional weapons can support Non Lethal Policy, and NLWs may be used with lethal intent. Since NonLethal Policy reflects the commander's intentions, the various players must understand those intentions, and the need for constant communication between all the parties cannot be overstated. Not everyone may support the policy, and some may even oppose it, but they should know what it is. The struggle is for the "hearts and minds" and not for physical objectives, and the Public Affairs, Civil Affairs, and Psychological Operations force components, and even nonmilitary organizations like NGOs and PVOs, will have critical roles to play both in the development and execution of NonLethal Policy and the overall effectiveness of NLWs.

4. *What is the likely cost or risk to the joint force in performing that sequence of actions?*

(Cost/benefit ratio.)

In a contingency operation the tactical, operational, and strategic levels are compressed, and NLWs may allow for uncoupling of the strategic connection to tactical events. Lovelace writes that "[Using NLW] is part of the desire to preserve and enhance the political utility of military force."³⁴ Unfortunately, focusing on technology instead of policy carries the danger that operational or strategic failure will be inferred from a tactical NLW failure. Instead, a robust NonLethal Policy will survive the inevitable NLWs failures, and minimize any ensuing disappointment.

The use of NLWs does constitute fighting and is not a prelude or a substitute for combat. If fighting, or combat, is understood as the application of force to achieve the commander's will against the will of the enemy, then NLWs must be understood as a form of combat. Clausewitz made the same declaration when he said, "War is an act of force to compel our enemy to do our will."³⁵ Additionally, the commander must assess how NonLethal Policy will accommodate NLWs if their use results in conflict escalation or loss of operational surprise.

NLWs also convey messages, if none other than the reluctance to use lethal force. The notion of sending signals through the gradual use of force immediately brings back painful memories of the air campaigns over North Vietnam thirty years ago. However, sending a message is not inherently wrong, even the nuclear weapons deployed over Japan at the end of WWII sent a message. The risk lies in the confusing of NLWs with being the message rather than the medium. Just because the commander controls the use of the NLWs, that does not guarantee that even he knows what message is sent by their use, much less whether or not the recipients have correctly understood it. An well-understood NonLethal Policy minimizes that risk, and keeps the

different audiences focused on the commander's intentions, rather than the means he uses to achieve those intentions. Consequently, the reiteration of NonLethal Policy to all interested parties must continue before, during and after the deployment of the NLWs.

Another risk lies with the forgiving nature of NLWs. The weapon effects may initially overwhelm an opponent, particularly if they were unexpected, but subsequent uses may inure the victims. If the commander continually employs the same weapon in a predictable fashion, the enemies may learn how to defeat or mitigate the NLW effects and press their attack against unprepared troops. The commander should be sensitive to the repeated uses of a particular weapon in a given situation, since it may indicate the potential inadequacy of the NonLethal Policy or possibly preparation for a more aggressive attack. Throughout the operation, no one should ever compromise individual or unit self defense because of the presence of the NLWs, or for the sake of NonLethal Policy.

Finally, NLWs may have a significant logistics and sustainment footprint that may exceed their potential value to the commander. The commander must carefully weigh the potential value of a NLW against the logistic burden it imposes. If after a few NLW confrontations, the opponents learn how to employ countermeasures, the relative value of that particular NLW falls to nearly zero, while the logistics effort remains constant. On the other hand, a NonLethal Policy may accomplish the same minimal casualty goals through an imaginative use of the current inventory of weapons and equipment without incurring any additional logistics costs.

CONCLUSIONS

Clausewitz's dictum quoted at the beginning of this essay cautions the reader not to confuse kindness with the true goal of the art of war. The operational commander must not make

the same mistake with NLWs: they are used not for kindness sake, but to achieve objectives. NLWs are not magical, guaranteeing that no one will suffer. Their utility lies not in reducing combat to a game where at day's end everyone can go home, but in achieving the stated policy goals. NLWs may run the gamut from exotic technologies to simple devices, but their function must correspond to the user's intent.

A complex contingency presents an inherently unstable and chaotic environment in which the operational commander must act. NLWs add another degree of freedom to the application of force, but unless the commander has integrated the new technologies into a coherent operational plan, the new weapons could bring disaster and disappointment. The operational plan must focus not on specific technologies, but rather support specific policies that employ the new technologies as appropriate. From an operational perspective, to find success the NonLethal Policy will need to draw upon all the assets available to the operational commander. Those assets include lethal weapons, civil affairs, psychological operations, and combat and combat support elements with particular attention paid to logistic support.

In addition to the assets under his command, the operational commander will have to gain support from coalition forces and nonmilitary organizations that also have a stake in the outcome. The coalition partners must share, or at least not obstruct, the NonLethal Policy goals, while the NGOs and PVOs may offer invaluable expertise, experience and insight into the local situation. The various players, including members of the local population, as well as the operational commander, must make great effort in communicating intentions and perceptions with each other to achieve unity of effort, and to avoid inadvertent confrontation.

The decision to enter into a complex contingency must not be taken lightly but, once in, the commander must prepare for the long haul of bringing peace and stability to a region that is

in crisis. Typically, the passions and hatreds will run deep, and the policy instituted by the commander must take that into account. The situation requires subtle applications of force, and the greatest power will not necessarily be a function of the greatest lethality. NLWs will provide the commander with additional tools to accomplish his aims, but they have to be considered early in the planning cycle, and constantly reevaluated throughout the mission execution. In turn, an adequate NonLethal Policy integrates NLWs and all other assets available to the operational commander to create the military conditions dictated by strategy. The four questions and six principles outlined in the *JTF Commanders Handbook* provide an excellent way to examine the assumptions governing the use of force in the conflict and determine what combination of weapons and policies will lead to success.

Finally, NLWs must never leave US forces in a dangerous or compromised position. Their use must always be consistent with requirements of self and force protection. No one should ever misunderstand that commitment.

¹ Clausewitz, p.75

² JTF Commander Handbook, p I-6

³ JTF Commander's Handbook for Peace Operations, p.ii

⁴ FM 100-23, *Peace Operations*, p.v

⁵ *A Joint Concept for Non-Lethal Weapons*

⁶ Lovelace and Metz, pps. v., 12, 14

⁷ Alexander, 1994, p.4

⁸ Morris, Morris, and Baines, pp. 23 -24

⁹ Morehouse, p.5

¹⁰ Barry and Morgenthau, the article title uses the phrase, 'Phasers on Stun'

¹¹ Statement of The Director, Strategic and Tactical Systems Office of the Under Secretary of Defense for Acquisition and Technology, George R. Schneider, before the Subcommittee on Acquisition and Technology of the Committee on Armed Services United States Senate on Nonlethal Weapons. March 15, 1996

¹² N-LW, Multiservice Tactics, Techniques, and Procedures for the Tactical Employment of Non-Lethal Weapons, 2nd Draft, 12 June 1997, Air Land Sea Application Center, US Army Training and Doctrine Command, Ft. Monroe, VA 23651

¹³ N-LW, Multiservice Tactics, Techniques, and Procedures for the Tactical Employment of Non-Lethal Weapons, p.35

¹⁴ Morris, Morris, and Baines,

¹⁵ Clausewitz, p.112

¹⁶ JTF Commander Handbook, p.iii

¹⁷ *A Joint Concept for Non-Lethal Weapons*

¹⁸ Bass, p.3

¹⁹ USMC After Action Report on Operation United Shield, 7 June 95, p.5

²⁰ Allard, p. 91

²¹ DoD Directive, 3000.3

²² Linder, p.28

²³ Dworken, Jonathon T., p.31

²⁴ Edwards and Granfield, p.4

²⁵ FM 100-23, Peace Operations, p.18

²⁶ Duncan, p. 41

²⁷ Murphy, p.2, Clausewitz makes a similar claim when he identifies public opinion as the CoG during a popular uprising. Clausewitz, p.596

²⁸ Allard, p.90

²⁹ Duncan, p.11

³⁰ Lovelace and Metz, p.14

³¹ USMC After Action Report on Operation United Shield, 7 June 95, p. 9

³² USMC After Action Report on Operation United Shield, 7 June 95, p. 6-7

³³ Woodward, Bob, p.177

³⁴ Lovelace and Metz, p.6

³⁵ Clausewitz, p.75

Non-Lethal Weapons - A Bibliography

JOURNAL ARTICLES:

- Alexander, John B., *Non Lethal Weapons as Force Options for the Army*, Los Alamos National Laboratory, Los Alamos, NM LA-UR-94-861
- Barry, John and Tom Morganthau, "Soon, 'Phasers on Stun'," *Newsweek*, 7 February 1994, pp. 30-31
- Bass, Harold C., Maj (USMC), "Nonlethal Weapons and Conventional War: Facing the Facts and Dilemmas," an unpublished paper submitted to the Department of Joint Maritime Operations, Naval War College, Newport RI, (February 1998)
- Cook, Joseph W., MAJ (USA), and David P. Feily, Maj (USMC), and McGowan, Maura, Maj. (USAF), "Non-lethal Weapons, Technologies, Legalities, and Potential Policies," *Journal of Legal Studies* 5, ('94-'95): 23-43.
- Debban, Alan W., LtCol (USAF), "Disabling Systems: War Fighting Option for the Future," Air War College Research Paper, Air War University, Maxwell AFB, AL
- Duncan, James C., LtCol (USMC), "A Primer on the Employment of Non-Lethal Weapons," *Naval Law Review* 45, (1998): 1-56
- Dworken, Jonathon T., "Rules of Engagement: Lessons Learned from Restore Hope," *Military Review*, (September 1994)
- Edwards, Steven M., and John Granfield, "Evaluation of Pepper Spray," Research Brief, National Institute of Justice, (February 1997)
- Hertog, Mary Kay, Lt Col, (USAF), "Nonlethal Weapons and Their Role in Military Police Missions: Future Fact or Fantasy?" Air War College Research Paper, Air War University, Maxwell AFB, AL (April 1996)
- Hunter, Roger A., Maj (USA), "Disabling Systems and the Air Force," *Airpower Journal* 8, no 3 (Fall 1994): 34-37.
- Klaaren, Jonathon W., Maj (USAF), and Ronald S. Mitchell, Maj. (USAF), "NonLethal Technology and Airpower, A Winning Combination for Strategic Paralysis," Air War College Research Paper, Air War University, Maxwell AFB, AL
- Kozaryn, Linda D., "U.S. Troops in Bosnia Get Nonlethal Weapons," American Foreign Press Service, Number: 97611
- Linder, James, "A Case for Employing NonLethal Weapons," *Military Review* 76, no 5, (September 1996): 25-30
- Lovelace, Douglas C. and Steven Metz, *NonLethality and American Land Power: Strategic Context and Operational Concepts*, Strategic Studies Institute, US Army War College, Carlisle, PA, (June 1998)
- Luttwak, Edward N., "Toward Post-Heroic Warfare," *Foreign Affairs*, vol.74, no.3 (May/June 1995)
- Morris, Chris, Janet Morris, and Thomas Baines, "Weapons of Mass Protection: Nonlethality, Information Warfare, and Air Power in the Age of Chaos," *Airpower Journal* 9, no 1 (Spring '95): 15-29.
- Murphy, Dennis M., LTC (USA), "Organizing Nonlethal Attack Assets in Operational and Strategic Organizations," US Army War College, Carlisle, PA (April 1997)
- Pasternak, Douglas, "The Pentagon's Quest for Nonlethal Arms is Amazing. But Is It Smart?" *U.S. News and World Report*, v123n1, pp. 38-46, 1997. Number: 03326105

Popovich, Michael J., Maj (USMC), "The Tactical Employment of Non-Lethal Technologies," School of Advanced Military Studies, US Army Command and General Staff College, Ft. Leavenworth, KN (December 1997)

Schneider, Greg R., Lt. Col. (USAF), "Nonlethal Weapons: Considerations for Decision Makers," An ACDIS Occasional Paper, University of Illinois at Urbana-Champaign, (January 1997)

Stanton, Martin N., LTC (USA), "What Price Sticky Foam?" *Parameters*, (Autumn 1996): p.63-68

Zinni, Anthony, LtGen (USMC), "No Premium on Killing," *U.S. Naval Proceedings*, (December 1996), pp. 26-28

DOD PUBLICATIONS;

A Joint Concept for Non-Lethal Weapons, Insert in the Marine Corps Gazette, vol.82, no.3 (March 1998)

Joint Publication 3-07, *Joint Doctrine for Military Operations Other Than War*, Joint Warfare Center, Ft. Monroe, VA, (June 1995)

FM 100-23, *Peace Operations*, Headquarters, Department of the Army, Washington D.C., (December 1994)

N-LW, Multiservice Tactics, Techniques, and Procedures for the Tactical Employment of Non-Lethal Weapons, 2nd Draft, 12 June 1997, Air Land Sea Application Center, US Army Training and Doctrine Command, Ft. Monroe, VA 23651

BOOKS:

Allard, Kenneth, COL (USA), Somalia Operations: Lessons Learned, National Defense University Press, Ft. McNair, Washington, D.C., 1995

Clausewitz, Carl von, Michael Howard and Peter Paret, ed., On War, Princeton University Press, Princeton, NJ, 1985

Dando, Malcom, A New Form of Warfare: The Rise of NonLethal Weapons, Brassey's, London, UK, 1996

Lewer, Nick and Steven Scofield, NonLethal Weapons: A Fatal Attraction, Zed Books, Ltd. London, UK, 1997

Morehouse, David A., Non Lethal Weapons: War Without Death, Praeger Publishers, Westport, CT, 1996

Woodward, Bob, The Commanders, Simon and Schuster, 1991